



## A PILOT CLINICAL STUDY TO EVALUATE THE EFFICACY OF LALLATA BASTI IN VATAJA SHIRASHOOLA W.S.R TO MIGRAINE.

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### ABSTRACT:

Background: In *Ayurveda Shirah* is considered as *Uttamanga*, as it is the seat of *Prana* and *Indriyas*. *Shiroroga* is the broad term that indicates mainly the *shirashoola*. Various *Acharyas* have explained about *Shirorogas* their *Nidana*, *Lakshana* and *Chikitsa*, this shows the importance of it as a separate disease entity. Migraine is the most common clinical entity and it causes pain or discomfort in the head, scalp or neck and is often associated with muscle tightness in this area. Prevalence rate of migraine in men is 8.6 % and that of women is 17.5%. *Lalaata Basti* with *Mahanarayanataila* helps in relieving Vata, provides *Swedana* action, nourishes and strengthens the muscles. **OBJECTIVES:** A Clinical Study to evaluate the effect of *Lalaata Basti* in *Vataja Shirashoola* on the basis of various scientific parameters. **Method:** This is a single arm Pre and post test Pilot clinical study. Total 10 patients of *shirashoola* were randomly selected from *Panchakarma* OPD and IPD of DGM Hospital, Gadag. **Result:** Lalaata basti showed marked improvement, it is cost effective and no untoward toxic effect was observed during and after the treatment. **Conclusion:** The therapy is very useful for pain and disturbed sleep, Patients who are suffering from headache more than 2 years, Lalaata basti showed marked improvement, Lalaata Basti can be applied in some cases of shirogata rogas, also it can be done instead of shiro basti in some cases.

**Key words:** *Vataja Shirashoola*, *lalaatabasti*, *MahanarayanaTaila*, Migraine.

## **INTRODUCTION:**

Ayurvedic science has placed its own unique protocol to make the world happy and healthy. More than a medical system, it gives importance to culture, lifestyle of millions of people. It also gives importance to preventive and curative aspects.

In *Ayurveda Shirah* is considered as *Uttamanga* <sup>(1)</sup>. It is included in one among three *Marmas* and also *Dasha Pranayatana*. Diseases related to head is explained in *Ayurvedic* classics. *Vataja Shirashoola* is one among the *Shiro Rogas* explained by Acharya Charaka, Sushruta and *Vagbhata*. *Vataja Shirashoola Lakshanas* are *Bheda, Todavath Shoola, Prakasha Asahishnuta*, Pain in the temporal and parietal region, this shows the importance of it as a separate disease entity <sup>(2,3)</sup>.

Migraine is the most common type of Headache, it causes severe throbbing pain, pulsing sensation, pain and discomfort at one side of the head but often both sides, sensitivity to light and sound, disturbed sleep, nausea and vomiting and it lasts for hours or day. Prevalence rate of migraine in men is 8.6% and that of women is 17.5% <sup>(4)</sup>.

*Lalata Basti, Kati Basti, Greeva Basti, Jaanu Basti, Hrid Basti, Prushta basti*, these are the *Vikalpa* of *Shirobasti*. *Lalata Basti* is the procedure in which *Mahanarayanataila* in the

form of *sukoshna* is kept over the forehead for 30 minutes with the help of *masha pisti*. *Lalaata Basti* with *Mahanarayanataila* helps in relieving *Vata*, provides *Swedana* action, nourishes and strengthens the muscles.

## **AIMS AND OBJECTIVES:**

A Clinical Study to evaluate the effect of *Lalaata Basti* in *Vataja Shirashoola* on the basis of various scientific parameters.

## **MATERIALS AND METHODS:**

**Study design:** Single arm Pre and post test Pilot clinical study

### **Study Sample:**

Total 10 patients of *shirashoola* were randomly selected from *Panchakarma* OPD and IPD of DGM Hospital, Gadag.

### **Diagnostic Criteria**

Headache having severe throbbing pain, pulsing sensation, pain and discomfort at one side of the head but often both sides, sensitivity to light and sound, disturbed sleep, nausea and vomiting and it lasts for 4 hours to 73 hrs.

### **Inclusion Criteria:**

- Patient between the age group of 18 to 60 years diagnosed with *Vataja shirashoola* belonging to either sex irrespective of socio-economic status.
- Patient with complaints of *bheda / todavath shoola / prakashana asahiishnuta, shiro abhitapa*, pain in temporal and frontal region.

**Exclusion Criteria:**

- Patient who are contraindicated for *Swedana*
- Deformities of spine

**Investigations**

- CBC
- ESR
- RBS

**Clinical Assessment of the disease:**

**Subjective Parameters:**

**Table No. 1**

<i>Bheda Todavath Shoola</i>	Grades
Nil	0
Occasionally	1
Moderate but does not disturb routine work	2
Severe, disturbing routine work	3

**Table No. 2**

<i>Prakasha Asahishnuta</i>	Grades
Nil	0
Occasionally	1
Moderate but does not disturb routine work	2
Severe, disturbing routine work	3

**Table No. 3**

<i>ShiroAbhitapa</i>	Grades
Nil	0
Occasionally	1
Moderate but does not disturb	2

routine work	
Severe, disturbing routine work	3

**Table No. 4**

<i>Pain in frontala and temporal region</i>	Grades
Nil	0
Occasionally	1
Moderate but does not disturb routine work	2
Severe, disturbing routine work	3

**Objective Parameters:**

**Table No. 5**

<i>Severity of Headache</i>	Grades
No Headache	0
Mild Headache	1
Moderate Headache	2
Severe Headache	3
Excruciating Headache	4

**Table No. 6**

<i>Frequency of Headache</i>	Grades
Nil	0
>20	1
15	2
10	3
<5	4

**Table No. 7**

<i>Duration of Headache</i>	Grades
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Nil	0
1-3 hours/day	1
3-6 hours/day	2
6-12 hours/day	3
More than 12 hours/day	4

**Table No. 8**

<b>Nausea</b>	<b>Grades</b>
Nil	0
Occasionally	1
Moderate but does not disturb routine work	2
Severe, disturbing routine work	3

**Table No. 9**

<b>Vomiting</b>	<b>Grades</b>
Nil	0
Feeling of giddiness	1
Patient feels as if everything is revolving	2
Revolving sign + black outs	3
Unconscious	4

**Table No. 10**

<b>Aura</b>	<b>Grades</b>
Nil	0
Last for 5 minutes	1
Last for 15 minutes	2
Last for 30 minutes	3
Last for 60 minutes	4

### **Treatment schedule**

*Lalaata Basti with Mahanarayana Taila* <sup>(5)</sup> for 7 days.

From 1<sup>st</sup> day to 7<sup>th</sup> day -350ml of *Mahanarayana taila* is used.

(Every day 50 ml of *taila* is used)

### **LALAATABASTI PROCEDURE**

#### **POORVA KARMA:**

- *Mahanarayana Taila* was made into lukewarm indirectly by placing it in a vessel containing water.
- The black gram is made into flat slab like structure having length about 45-60 cm, thickness of 3 cm and height of 5 cm.

#### **PRADHANA KARMA:**

- The patient was made to lie supine position on the table and *Lalaata pradesha* is exposed. The dough was made into a shape of circular ring corresponding to the area of tenderness in the Temporal region.
- According to the tolerance of the lukewarm oil, it is slowly poured inside the circular ring. Once the temperature of the oil is decreased, it was replaced with lukewarm oil again. The procedure was repeated up to 45 minutes.

#### **PASCHAT KARMA:**

- After the procedure, oil was completely removed out and the dough ring was also removed from the frontal region.

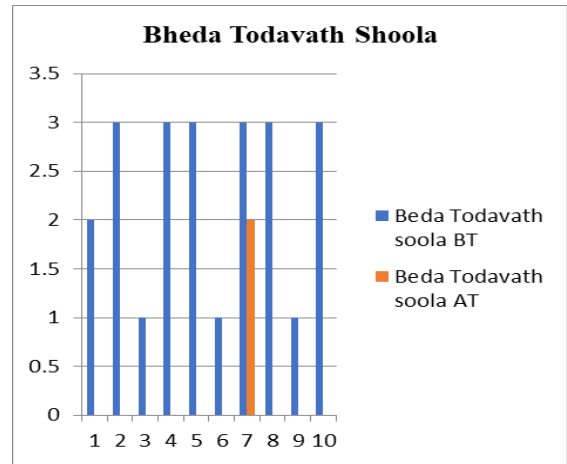
- Mild massage over the area was done. Then the patient was advised to take lukewarm water bath after 15 to 20 minutes & advised to take *Laghu, Ushna & Anabisyandi ahara*.



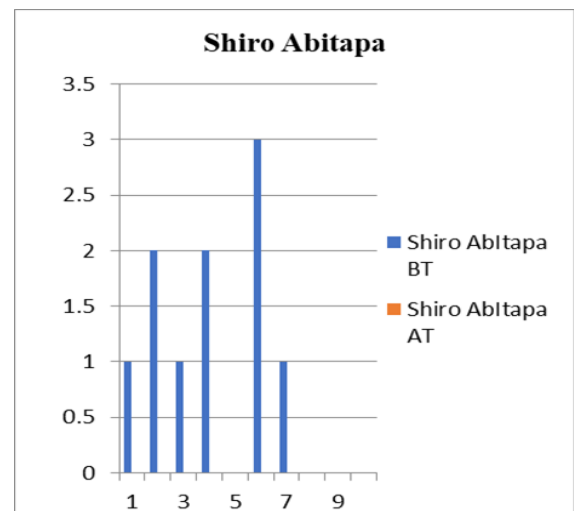
Figure No. 1



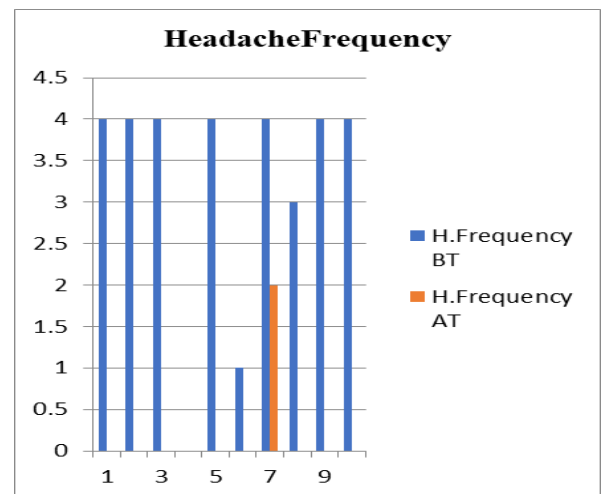
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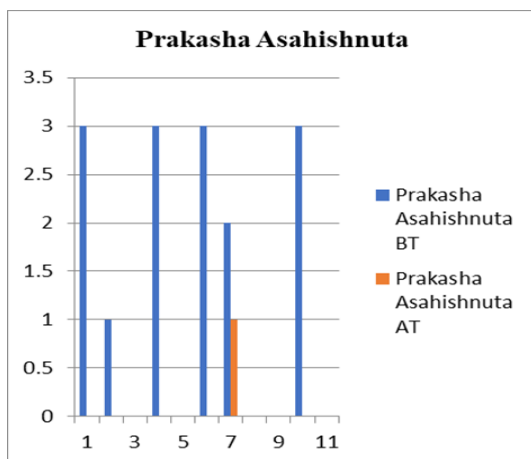
Graph 2



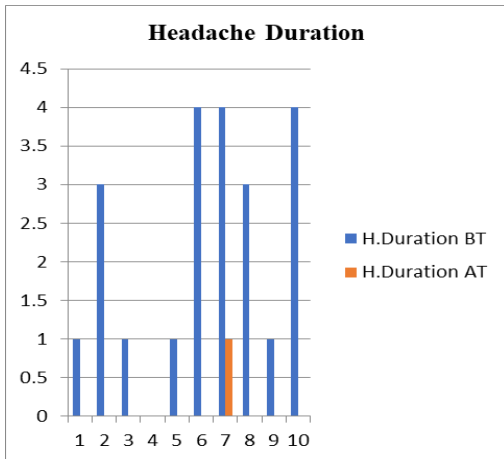
Graph No. 3



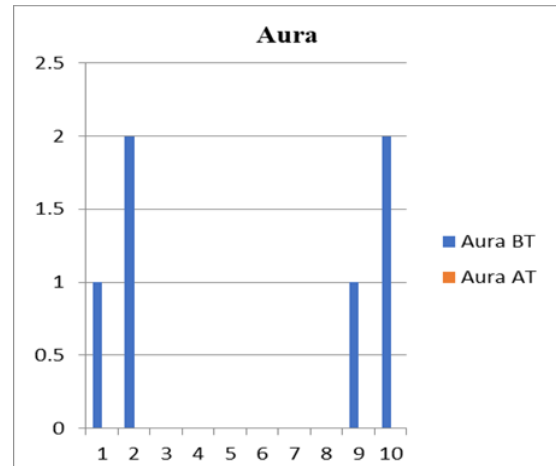
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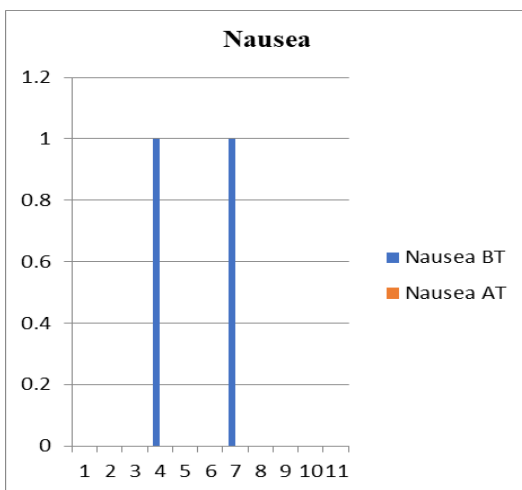
Graph No. 1



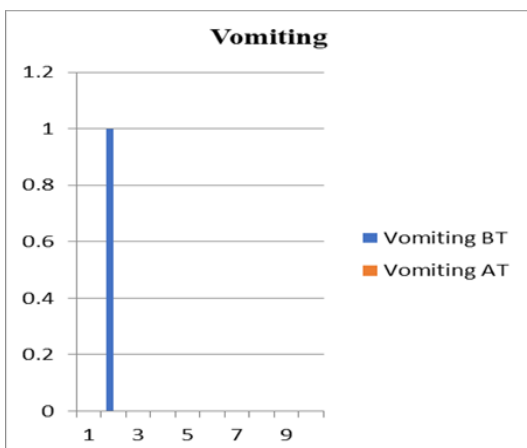
Graph No. 5



Graph No 8



Graph No.6



Graph No. 7

### Statistical Analysis:

The effect of therapy was assessed on each sign and symptoms of the disease. these sign and symptoms were given scoring pattern before treatment and after treatment and were assessed statistically to see the significance. All the parameters are significant except Nausea, Vomiting and Aura.

### DISCUSSION:

#### A) DISCUSSION ON OBSERVATION AND RESULTS DEPENDING ON STATISTICAL REPORT.

**Age:** Among 10 patients suffering from the *shirashoola*, maximum number of patients i.e.,95% were in the age group of 24-30 years, 5% of the patients were 30- 35 years. **Sex:** 5 patients are male and 5 patients are female.

**Religion:** 9 patients are Hindu and 1 patient is Muslim.

**Occupation:** 5 patients are labour and 5 patients are sedentary.

**Economic status:** 2 patients are middle. 4 patients are higher middle and 4 patients are poor.

**Ahara:** 7

patients (70%) are mixed and 3 patients (30%) are vegetarian. **Vyasana:** 1 patient is tobacco chewer and 9 patients are not having any habits. **Agni:** 1 patient is having *Samagni*, 2 patients are having *Vishamagni*, 6 patients are having *Teekshnagni*, 1 patient is having *Mandagni*. **Kosta:** 7 patients are having *Madhyama koshta*, 2 patients are having

*Mrudu koshta* and 1 patient is having *Krura koshta*. **Chronicity of Disease:** 5 patients are in above 1 year and 5 patients are in below 4-6 months. **Onset:** 6 patients are of Gradual onset, whereas 4 patients are of Sudden onset.

**Table No 11 Statistical Analysis Table**

Parameters	Sum of ranks	Mean of Ranks	MD	SD	Z-Value	P-Value	Remarks
<i>Beda Toda vath Shool</i>	55	27.5	2.3	9.81	2.803	0.0051	Significant
<i>Prakasha Ashishuta</i>	21	10.5	2.5	4.76	2.20	0.027	Significant
<i>Shiro Abitapa</i>	21	10.5	1.67	4.76	2.20	0.027	Significant
<i>Pain in Temporal &amp; Parietal</i>	55	27.5	2.5	9.81	2.803	0.0051	Significant
<i>H.Severity</i>	55	27.5	2.9	9.81	2.803	0.0051	Significant
<i>H.Frequency</i>	45	22.5	3.56	8.43	2.66	0.0078	Significant
<i>H.duration</i>	45	22.5	2.44	8.43	2.66	0.0078	Significant
<i>Nausea</i>	03	1.5	0.2	1.11	1.66	0.096	N. S
<i>Vomitting</i>	01	0.5	0.1	0.5	01	0.317	N. S
<i>Aura</i>	09	4.5	0.6	2.73	1.64	0.101	N. S

## B) DISCUSSION ON DISEASE

### **Nidana of Vataja Shirashoola:**

*Atyadika dhooma, Ati ushna or sheeta sevana, Jala krida, Ati ambu or madyapaana sevana, bashpa nigrhana, Rodana, Adika taila mardana, Dwesha,*

### **Lakshanas of Vataja Shiroroga:**

*Shiro abitapa, Shiro ruja* more in night time, after Tieng bandage and by *atapa sevana* it gets reduces.

## C) DISCUSSION ON TREATMENT:

### **LALAATA BASTI: Probable mode of action**

The *Adhishthana* of *Vataja Shirashoola* is *Lalaata Pradesh* which is predominant site of

*Vata Dosha*, So *Dosha Pratyanyika Chikitsa* is likely to be effective. *Taila* helps in relieving aggravated *Vata Dosha* when processed with *dravyas* having pharmacotherapeutic properties opposite to the qualities of *Vata Dosha*. Majority of the drugs of *Mahanarayana taila* are *Ushnaveerya*, *Vata Kaphahara*, using it in *Lalaata basti* reduces *sthamba*, *Ruk* and *Toda* due to effect of its *Gunas*.

*Lalaata Basti* is a procedure which has properties of *Snehana* & *Swedana*, is very effective and gives quick result because they act at the site of *Samprapti*. As *Vata Dosha* is *Sheeta*, *Ruksha* and *Laghu* in nature. *Snehana* is *Snigdha* and *Swedana* being *Ushna* alleviates *Vata*, helps in relieving *Gauravata*, *Stambha*, *Toda*, *Vedana* and *Shotha* which are common symptoms of *Vatavyadhi* (Cha.chi.28/80).

#### PHYSIOLOGICAL EFFECT OF HEAT

**Pain relief and Muscle relaxation:** Application of local heat to reduce pain is a common therapeutic technique. When heat is applied to the painful muscle spasm, it reduces the excitability of the muscle spindle. Heat has been applied as a counter irritant, which is the thermal stimulus helps in relieving pain.

#### THE EVALUATION OF LALAATA BASTI SHOWS FOLLOWING ANALYZED FACTORS.

##### 1.Quantity of oil:

During the study, it has been observed and standardized that minimum of 50 ml of oil is required for the procedure.

##### 2.Height of the dough:

The height of the dough must be 4 cm. if it is less than 4 cm, 50 ml of oil cannot be retained properly.

##### 3.Diameter:

Diameter must be minimum of 6cm, it was able to retain 50 ml oil in the stipulated 4 cm of the height.

##### 4.Temperature:

Among 10 patients,

6 patients (*Kaphavataja Prakruti*) - 42°C tolerance.

4 patients (*Vatapittaja Prakruti*) - 40°C tolerance.

##### 5.Duration:

During the study, the duration was 30 minutes.

#### D) DISCUSSION ON SUBJECTIVE AND OBJECTIVE PARAMETERS:

Cardinal symptoms are *Bhedatodavath Shoola*, *Prakasha Asahishnuta*, Pain in the temporal and parietal region which are predominantly observed.

Among 10 patients, 8 patients were having severe symptoms and 2 patients were having mild symptoms.

#### E) DISCUSSION ON OVERALL IMPROVEMENT IN SUBJECTIVE AND OBJECTIVE PARAMETERS:

**Table No. 12**

Overall assessment of result	Number of patients	Number of Patients in %
Complete relief	08	80%
Moderate relief	01	10%
Mild relief	01	10%
No relief	-	-

**During Treatment:** Among 10 patients, 8 patients got complete relief from headache. 2 patients were suffering from Nausea, Vomiting and Aura, and not satisfied with the treatment.

Among 8 patients, 4 patients were suffering with Headache in the last 2 years as they are farmers, they had to expose to sun repeatedly and also had history of *Ruksha Ahara Sevena*. They got relief during and after the treatment. After 2 months of treatment, 2 patients were experiencing repeated episodes of headache and treated with *Shaman Aushadi* i.e *Pathyadi Khada* and *Soothasekara rasa* twice a day before food for 15 days. after *Shaman Aushadi* there is no reoccurrence of headache and other 2 patients among 4 patients were completely satisfied with the treatment.

Remaining 4 patients had completely got relief during 3<sup>rd</sup> day of treatment, on 2<sup>nd</sup> day of treatment they had sound sleep.

### CONCLUSION:

The therapy is very useful for pain and disturbed sleep. Patients who are suffering from headache more than 2 years, *Lalaata basti* showed marked improvement; *Lalaata Basti* can be applied in some cases of *shirogata rogas*, and it can be done instead of *shiro basti* in some cases. *Mahanarayana Taila* helps in relieving aggravated Vata and does *Vedanashamaka*. *Lalaata Basti* is cost-effective and no untoward effect was observed during and after the treatment.

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